K.KARAN:-

2) MY QUESTIONS WITH AN EXPERTT

→ If a horror habit, a real for a long time being affected on a person, or one's terror can change person's Genes habit in the 'DNA' and that can be tranfered to his son ??

Expert: Yes – but with an important distinction. Listen,

A person's behaviour or fears are generally not directly written into their DNA and passed to their children. However, long term trauma or extreme stress may leave biological changes that can sometimes influence the next generations through a process called 'epigenetic inheritance.'

understand the difference here,

1. Genes (DNA sequence):

• Your DNA sequence usually does not change because you experience fear or traum.

• If someone develops a life-long fear of snakes, darkness, or violence, that fear does not rewrite the DNA code itself.

2. Epigenetics (gene regulation):

• Severe or prolonged stress can changes how certain genes are turned "on" or "off" without changing the DNA code itself.

• Some of these changes have been observed to pass to offspring in animals and there is some evidence they may accur in humans, although thi is still an active area of research.

For example:

• Children of people who survived major famines have show difference in metabolism.

• Some studies suggest that children of people exposed to war or severe trauma may have altered stress hormone responses.

• In mice, researchers have shown that fear conditioning (such as associating a partical smell with a mild shock) can affect off-spring, making them more sensitive to that smell. This evidence is much stronger in animals than in humans.

K.KARAN: Before we go ahead, can you tell me what is actually epigenetic inheritance? Can you explain it in more easy language.

Expert: Of course! I'll explain it in very simple language,

Imagine your body is like a huge library:

- DNA (Genes) = The books in the library. They contain the instructions for how your body is built.
- Epigenetics = Sticky notes placed on those books saying "Read this page more" or "Don't read this page much."

The important part is:

- The books (DNA) usually do not change.
- The sticky notes (epigenetic marks) can change because of your life experiences, such as long-term stress, starvation, or severe trauma.

Example 1: A soldier

Suppose a soldier spends 10 years in a war
He constantly hears explosions, sees people die, and lives in fear.

His body is under stress every day.

Over time:

- His brain becomes very alert.
- Stress hormones stay high.
- His body may place "sticky notes" on certain genes related to stress.

If he has a child, scientist think that some of these sticky notes might be passed to the child.

→ The child does not inherit the father's memories of war.

→ But the child might be born with a stress system that reacts more strongly then average.

Example : 2 A man terrified by snakes

Suppose a man is bitten by a snake and becomes terrified of snakes for the rest of his life.

Will his son automatically be afraid of snakes?

No.

The son doesn't inherit the memory of the snake bite.

However, if the father is always screaming whenever he sees a snake, the child may learn to fear snakes by watching him.

That's learned behaviour, no Genetic inheritance

Example: Hunger.

Imagine grandparents lived through a terrible famine.

For years, the didn't get enough food.

their bodies adapted to save every calorie.

Scientists have found that, in some cases, their children or grandchildren were more likely to store fat or have a higher risk of diabetes.

Again : remember,

- The DNA didn't change.
- The way some genes worked may have changed.

Here's another way to think about it.
Think of your DNA as a piano.
The piano keys never change.
But the song you play on the piano can change.
Epigenetics is like changing how the piano is played, not changing the piano itself.

K. KARAN :- Can fear really affect children?

Expert! May be - but not in the way many people imagine.

A parents who experience severe trauma may have children who are:

- more anxious,
- more sensitive to stress,
- or quicker to react to danger.

That doesn't mean they inherit the parents exact fear or memories.

A famous mouse experiments.

Scientist did an experiment with mice.
They made mice smell a specific scent (like cherry blossom) and then gave them a tiny harmless electric shock.
After repeating this many times:

- the mice became afraid whenever they smelled that scent.

Surprisingly, their babies - who had never received a shock - were also more sensitive to that scent than normal.
This suggested that some effect of trauma can be passed on biologically in animals.
Scientists are still studying how much of this also happens in humans.

So the intial question from you - Can trauma change genes?
My answer is "No"!

Trauma usually doesn't change the DNA itself.

It can sometime change how genes are used, which called epigenetics.

A simple analogy:

- DNA = the recipe book.
- Epigenetics = bookmark and notes telling the cook which recipes to use more often

The recipe book stays the same, but the way its used can change - and in some cases, a few of those "notes" may be passed to the next Generations.

Scientists are still researching how common and how strong these effects are in humans, but the basic ideal is that life experiences can sometimes leave biological marks without rewriting your Genetic code.

If I say that the evidence has been widely present all around us in India for thousands of years, would you believe me? (9.)

K. KARAN

Expert: I would be interested, even the readers too after reading your statements and texts more Seriously. Explain us your evidence before me and readers, would be really ~~existing~~ excited for hearing you reasoning

K.KARAN: Sure, but before I start explaining it, I would take an instance first,

So, ...!